alcohol to ether molar ratio which is set forth on page 9, indicated lines 20 to 22, of the application, and the molar ratio of the sum of alcohol and ether to boron trifluoride which is set forth on page 9, indicated lines 29 to 31, of the application. The section on page 9, indicated lines 20 to 22, of the application also supports the subject matter defined in new Claims 13 and 14, and the subject matter of new Claim 15 is supported by the data on page 14 in cols. 3 and 4 of Table 1, regarding Examples 1 to 4 and 7, of the application. New Claims 16 and 17 depend upon Claim 15 and otherwise correspond to canceled Claims 2 and 3. Support for the subject matter of Claim 18 is provided on page 9, indicated lines 29 to 31, of the application, and new Claims 19 and 20 which depend upon Claim 18 correspond to canceled Claims 2 and 3. New Claims 21 and 22 also correspond to canceled Claims 2 and 3 but depend upon new Claim 12. New Claims 23 to 26 essentially correspond to canceled Claims 6 to 9, the difference being that the new Claims depend upon Claim 12 and that applicants have made some minor editorial changes. Also, new Claim 27 corresponds to Claim 10, and like new Claim 12, incorporates the definition of the ether compounds (I) which is set forth on page 7, indicated lines 22, to 35, of the application, the alcohol to ether molar ratio which is set forth on page 9, indicated lines 20 to 22, of the application, and the molar ratio of the sum of alcohol and ether to boron trifluoride which is set forth on page 9, indicated lines 29 to 31, of the application. No new matter has been added.

Applicants Claims 1 to 9 were deemed to be unpatentable under 35 U.S.C. §103(a) in light of the teaching of ***Rath*** (**US 5,408,018**). The respective grounds are, however, not deemed to be applicable to the claims herewith presented by applicants. In accordance with the newly presented claims it is, inter alia, required that the complex of the boron trifluoride, comprise a primary and/or a secondary alcohol (a) and a dialkyl ether wherein at least one alkyl group is a secondary alkyl group but no tertiary alkyl groups be present. It is further required that the alcohol (a) and the ether (b) have a molar ratio of the alcohol (a) to the ether (b) of from 0.01:1 to 1:1, and that the molar ratio of the sum of alcohol (a) plus ether (b) to boron trifluoride be more than 1 and less than 2.

The procedure addressed by ***Rath*** employs boron trifluoride complexes comprising secondary alcohol and/or ether ligands,[2] wherein

2) Cf. col. 4, indicated lines 34 to 44, of ***US 5,408,018***.

the ether ligands are preferably dialkyl ethers containing at least one tertiary alkyl group.[3] The respective ligands are employed in a ratio of 1 to 20, preferably 5 to 20 mol of secondary alcohol per dialkyl ether.[4] The respective teaching of ***Rath*** is, at best, generic to applicants' process in that the molar ratio of alcohol to ether ranges touch.

However, the patentability of a claim to a subgenus embraced by a prior art genus should be analyzed no differently than any other claim for purposes of 35 U.S.C. 103. "The section 103 requirement of unobviousness is no different in chemical cases than with respect to other categories of patentable inventions."[5] The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness.[6] In fact, the Federal Circuit has "decline[d] to extract from *Merck* [*& Co. v. Biocraft Laboratories Inc.*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir. 1989)] the rule that . . . regardless of how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it."[7] To establish a prima facie case of obviousness in a genus-species situation, as in any other 35 U.S.C. 103 case, it is essential that there be some motivation or suggestion to make the claimed invention in light of the prior art teachings.[8]

Applicants' procedure deviates from the path which is suggested by the teaching of ***Rath*** in at least two aspect, namely the selection of the ethers which contain no tertiary groups where ***Rath*** recommends the utilization of ethers which contain at least one tertiary alkyl group, and the selection of alcohol to ether molar ratios which are at most 1 where the teaching of ***Rath*** recommends ratios of from 5 to 10. In general, a person of ordinary skill in the art would consider preferred embodiments to correlate with the best results. When turn-

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3) Cf. col. 7, indicated lines 61 to 65, of ***US 5,408,018***,

4) Cf. col. 8, indicated lines 23 to 26, of ***US 5,408,018***.

5) *In re Papesch*, 315 F.2d 381, 385, 137 USPQ 43, 47 (CCPA 1963).

6) *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994).

7) *In re Jones*, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992). See also *In re Deuel*, 51 F.3d 1552, 1559, 34 USPQ2d 1210, 1215 (Fed. Cir. 1995).

8) See, e.g., *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1996) ("[T]he mere possibility that one of the esters or the active methylene group-containing compounds . . . could be modified or replaced such that its use would lead to the specific sulfoalkylated resin recited in claim 8 does not make the process recited in claim 8 obvious "unless the prior art suggested the desirability of [such a] modification" or replacement.") (quoting *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)).

ing away from not only one but from two features which are disclosed in the generic teaching of *Rath* as preferred, a person of ordinary skill in the art would therefore reasonably expect that the results which are achieved in the process deteriorate. In contrast to this expectation, the results which are compiled in Table 1 of the application[9] show that applicants' procedure is as efficient and even more efficient than the procedure of *Rath*.

Moreover, applicants' data show that even further improvements can be achieved if the alcohol (a) and the ether (b) are employed in a molar ratio of from 0.4: to 1:1,[10] and if the molar ratio of the sum of alcohol (a) and ether (b) which is employed, relative to boron trifluoride, is from 1.4:1 to 2:1.[11]

The subject matter of defined in the claims which are presented herewith by applicants is, in light of the foregoing, deemed to be patentable under Section 103(a). Favorable action is respectfully solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 14.1437. Please credit any excess fees to such deposit account.

Respectfully submitted,
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Encl.: CLAIM AMENDMENTS (Appendix I)

JR/BAS

9) Cf. page 14 of the application.

10) Cf. e.g. applicants' examples 1 to 4 and 7 v. applicants' examples 5 and 6. See also Claim 15.

11) Cf. e.g. applicants' examples 1, 3, 4 and 7 v. applicants' examples 2, 5 and 6. See also Claim 18.